



DEPT. OF TRANSPORTATION
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August 26, 2002

The Honorable Jeffrey W. Runge, M.D.
Administrator
National Highway Traffic Safety Administration
400 Seventh Street, S.W.
Washington, D.C. 20590

Re: Federal Motor Vehicle Theft Prevention Standard; Notice of Proposed Rule:
Docket No. NHTSA-2002-12231-19
Published in Federal Register on June 26, 2002

Dear Dr. Runge:

The Alliance of Automobile Manufacturers (Alliance), whose members are BMW Group, DaimlerChrysler, Fiat, Ford Motor Company, General Motors, Isuzu, Mazda, Mitsubishi Motors, Nissan, Porsche, Toyota, and Volkswagen, is pleased to respond to the Notice of Proposed Rulemaking on motor vehicle theft prevention, published as Docket No. NHTSA-2002-12231 Notice 1.

The Alliance shares NHTSA's desire to reduce the incidence of vehicle theft and it supports vehicle requirements that are reasonable, efficient, and cost-effective. Its members have been working with the safety, law enforcement, and insurance community to improve the theft resistance of vehicles. Based on insurance data (attachment A), the latest generations of theft deterrent devices are performing very well in real world use.

The Alliance has not seen a persuasive analysis that proves that the existing parts marking standard deters theft. The Initial Report of the Attorney General¹ relies on a theft data analysis that is fundamentally flawed.² Because of its reliance on that analysis as the basis for determining that parts marking deter theft, the Initial Report fails to meet the requirements and intent of the Anti Car Theft Act of 1992. As a result, it is not effective public policy to extend the parts marking standard to "low theft" vehicles and a disservice to the motoring public that will bear the cost with no quantifiable benefit.

¹Department of Justice letter/report to the Department of Transportation ; NHTSA Docket – 2002 – 11442-1, July 21, 2000.

² The ABT report, on which the DOJ determination is based, does not adequately control for the independent presence or absence of anti-theft devices and parts marking. In that analysis it appears that vehicles were only categorized as vehicles with (1) neither parts marking nor anti-theft devices or (2) vehicles with one or the other or both. As a result, it is likely that the theft reduction benefits that are ascribed to parts marking are actually the result of vehicles with anti-theft devices that were included in the comparison group.

**BMW Group • Daimler Chrysler • Fiat • Ford Motor Company • General Motors
Isuzu • Mazda • Mitsubishi Motors • Nissan • Porsche • Toyota • Volkswagen • Volvo**

NHTSA's Exemption Procedure Regulations Limits Exemptions to High Theft Vehicles Only

From the preamble it appears that it is NHTSA's intent to continue to allow exemptions (at the current one vehicle line per year) from parts marking for vehicles with factory installed anti-theft devices that NHTSA deems are likely to be as (or more) effective in reducing and deterring theft as parts marking.

However, as currently drafted, Part 543 (which provides the anti-theft system exemptions) applies only to *high-theft* vehicles. As a result, exemptions would not be available to the low-theft vehicles, which this NPRM proposes to be parts marked.

Therefore, the Alliance believes that the current regulatory language must be clarified to preserve the availability of these exemptions for all vehicles subject to the Part 541 requirements. Specifically the Alliance suggests that this clarification could be accomplished with the following revision to Part 543:

S543.3 Application

This part applies to manufacturers of ~~high-theft~~ passenger vehicles *that are subject to the parts marking requirements of S541*; and to any interested person who seeks to have NHTSA terminate an exemption.

Lead-time

While the Alliance believes that the proposed September 1, 2005 effective date is adequate if the current labeling requirements are carried over to the remaining fleet, it will not be adequate if allegedly "more permanent" and complex labeling methods are required. In such a case, the amount of additional lead-time needed would depend on the specific labeling methods required.

Permanence of Markings

The Alliance agrees strongly that it is a necessary step for NHTSA, before issuing a proposed rule with additional marking or performance requirements, to obtain reliable, quantitative evidence that the current methods of parts marking are insufficient to meet the needs of law enforcement agencies (see footnote 30 in the NPRM).

The only materials in the record so far are some general comments from law enforcement agencies that the current requirements are not adequate. Because increasing the number or permanence of parts marking will increase costs, NHTSA must also develop sufficient quantitative evidence that there would likely be associated theft prevention benefits that warrant the increased cost.

This quantitative evidence should include an assessment of:

- ❑ The number of instances (relative to the total) where part markings were obliterated.
- ❑ The number of cases (relative to the total) where obliterated parts markings resulted in the case not being prosecuted or the conviction not obtained.
- ❑ Whether any change in the performance requirement that could be met at reasonable cost would prevent the observed type of obliteration of the markings.

Manufacturers of various types of marking equipment and products make claims of increased "permanence." However, these methods are either too costly or still can be removed or concealed with commonly available tools and techniques.

Improved Labels

Changes in label composition are likely to result solely in deterrence to counterfeiting of the label itself, not in an increase in permanence or a decrease in the occurrence of theft. In any proposed labels that we have seen demonstrated, the footprint could still be easily removed or concealed through the use of solvents and paints.

Stamping

If the parts marking law is changed to require use of stamping or inscribing of numbers, there would be a very substantial increase in costs. The specific costs vary with the specific part, manufacturing process, and volume of vehicles/parts to be marked. However, some of the general reasons for these cost increases are known.

Body panels and other body components may be manufactured, assembled, painted, and given corrosion treatments before the vehicle on which they will be used is identified. The VIN to be applied to them is unknown when the components are still uncoated, separate parts. Stamping identification numbers early in the process would require many changes in the manufacturing and assembly sequence. In turn, that would mean changes in facilities, equipment, and people.

Controlling the flow of parts so that all of the marked parts on a vehicle had the proper number would require substantial and costly record keeping and control. Also additional costs would be incurred for necessary body panel repairs since current processes support swapping of body panels until late in the assembly process.

Stamping numbers later in the process has its own problems. Additional equipment must be incorporated into the assembly line and operators must be added. Furthermore, such stamping would compromise the corrosion protection of the part, requiring costly additional repair operations. In addition, many body panels are made of nonmetallic materials. These panels are typically processed and sequenced separately from metallic panels, and any number stamped into nonmetallic panels will be no more permanent than the material of the panel itself.

Additional Alternative Methods

Additional marking methods are technically feasible: such as ink-jet printing, sandblasting, chemical etching, electronic “tagging,” low power laser etching, and high-power laser inscribing. However, these techniques either fail to increase the permanence of the markings or have unproven forensic utility, while having similar process, application, and corrosion issues as mentioned above.

Marking of Additional Components

Air Bags

The Alliance acknowledges that air bags have been the target of some thieves. However, adding these components to the parts marking regulation will not provide any additional theft deterrence or enhance prosecution. These components already carry unique identification markings that are recorded by the vehicle manufacturer at assembly. The vehicle manufacturers electronically link these markings to the vehicle identification number. Currently, virtually all vehicle manufacturers provide such information in response to special requests from the National Insurance Crime Bureau.

Additionally, there are serious problems with marking/stamping air bag modules. Modules are not designated for a specific vehicle prior to installation in the vehicle, and in many cases air bag modules are shipped to the vehicle assembly plant as a pre-installed component of a larger assembly. Stamping of the air bag housing as a separate part prior to assembly of the air bag is not practicable. In addition, stamping the air bag module at the vehicle assembly plant is also not practicable due to the inherent risk of damage to the module.

Glazing

There have been a number of programs where owners can have the glazing of their vehicle etched with the VIN by local police departments. The Alliance is not aware of any studies that demonstrate that such programs/markings actually deter theft or have aided in prosecution. The Alliance recommends that NHTSA study the real world impact of such programs before adding glazing to the parts marking regulation.

Four techniques for marking vehicle glazing have been suggested: labeling, chemical etching, sandblasting, and laser etching. Labeling, chemical etching, and sandblasting all result in an identification that can readily be removed or eliminated with commonly available tools and techniques. Also, the use of chemical etching of glazing requires using materials that must be carefully controlled to prevent injuries to workers and the environment.

The use of laser etching of glazing is the only technique that is capable of providing identification of significant permanence. However, the floor space, tooling, and operational safeguards required to perform the laser etching would result in multi-million dollar investment by each vehicle assembly plant building vehicles subject to the standard.

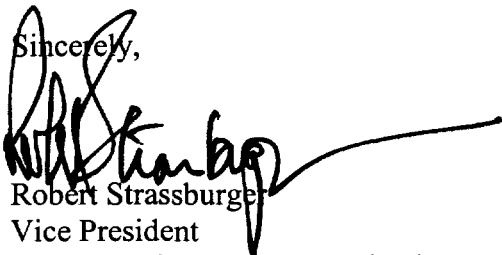
Regardless of technique, the effectiveness of markings on vehicle glazing is limited due to the fact that such glazing (e.g., windscreen) is often replaced during the lifetime of a typical vehicle.

Small Volume Manufacturers

The Alliance believes that the NHTSA has underestimated the costs of compliance for small volume manufacturers. However, since the specific costs vary for different manufacturers/manufacturing systems these entities will provide more detailed cost estimates to NHTSA in their individual comments. Furthermore, these cost estimates are expected to rise dramatically should NHTSA decide to require more permanent markings that are stamped or etched. As a result the Alliance believes that the proposed production limit of 500 vehicles for small volume status is too small. The Alliance believes that a production limit of 5000 vehicles per year is a more appropriate limit for small volume classification and would harmonize the small volume definition with other NHTSA standards (FMVSS 208 and 138).

The Alliance appreciates the opportunity to provide these comments and welcome the opportunity to discuss any aspect of this response with you or members of your staff. If there are any questions, please contact Scott Schmidt at (202) 326-5545.

Sincerely,

A handwritten signature in black ink, appearing to read "Robert Strassburger", with a long horizontal flourish extending to the right.

Robert Strassburger
Vice President
Vehicle Safety and Harmonization
Alliance of Automobile Manufacturers

cc: Docket No. NHTSA-2002-12231
Ms. Deborah Mazyck
Mr. Stephen R. Kratzke

Attachment A

Antitheft Devices in 1995 Model BMWs: Preliminary Results

Previous HLDI studies have found significant decreases in theft losses when factory installed passive immobilizing antitheft devices are introduced.^{1,2} An earlier *Theft Loss Bulletin*, for example, found appreciable decreases in theft average loss payment per claim and overall theft losses for General Motors vehicles that added standard equipment passive immobilizing antitheft devices.³

Beginning with January 1, 1995 production, BMW began installing an advanced passive immobilizing antitheft device on all car models. Vehicles produced earlier in the model year were equipped with a different kind of antitheft technology. The new system is activated by simply removing the key from the ignition and features an electronic chip in the ignition key that must match the electronics of the vehicle. The previous system required arming the antitheft system by a special locking routine and did not have an electronic key feature. The vehicles equipped with the newer antitheft device have visible notices of the antitheft system on all door glass.

BMW furnished information to HLDI directly as to which 1995 models were equipped with the more advanced system. It should be noted that these are preliminary results based on limited exposure.

Figure 1 compares the theft losses of 1995 BMWs equipped with the new advanced antitheft device to 1995 BMWs with the previous antitheft system. Results are presented in relative terms, with 100 representing the value for all passenger cars combined. The overall results are computed from the exposure weighted results of individual BMW models.

Significant decreases are found in both claim frequencies and average loss payments per claim for the cars equipped with the new antitheft system. These decreases result in overall theft losses for BMWs equipped with the new system being less than one-sixth of that for the BMWs equipped with the older system. When compared with other midsize and large luxury models, BMWs with the older antitheft system had losses appreciably above average

Figure 1: Theft Losses of 1995 BMWs

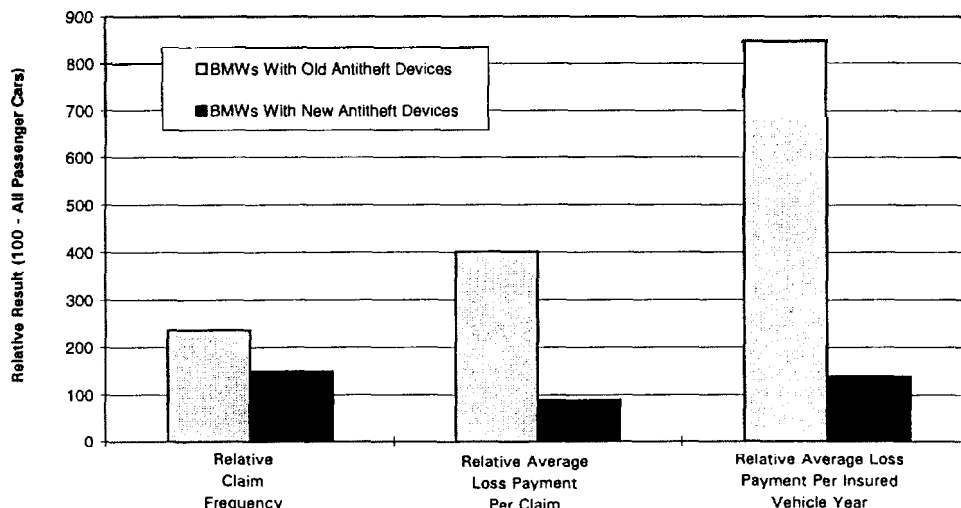


Table 1: Theft Losses of 1995 BMWs

1995 Models	Exposure (Insured Vehicle Years)	Relative Claim Frequency	Relative Average Loss Payment Per Claim	Relative Average Loss Payment Per Insured Vehicle Year
BMW's With Old Antitheft Devices	14,477	237	401	847
BMW's With New Antitheft Devices*	7,705	150	89	139
Percent Decrease		37 %	78 %	84 %
All Midsize Luxury Models	552,268	111	251	278
All Large Luxury Models	947,189	122	210	256
All Passenger Cars	100 =	4.3 **	\$ 5,124	\$ 21.9

* BMW added new advanced factory installed passive immobilizing antitheft device midyear.

** Claims per 1,000 insured vehicle years.

and BMWs with the new antitheft system have average loss payments per claim and overall theft losses significantly below average (Table 1).

The reduction in theft losses for BMWs equipped with the advanced antitheft devices is similar to that seen in other vehicles when these devices are introduced. Typically, large decreases are seen in average loss payments per claim while smaller decreases are found in claim frequencies. This pattern is not surprising since passive immobilizing antitheft devices prevent a vehicle from being started and driven away

by a thief but do little to prevent partial thefts and the damage that occurs to the vehicle from attempted thefts. Hence, the expensive total thefts are reduced by the new antitheft device resulting in lower average loss payment amounts but claim frequencies, which are dominated by smaller claims, are unaffected.

Typically, the dramatic decreases in theft losses often seen shortly after the introduction of passive immobilizing antitheft devices tend to lessen over time. However, the theft losses do tend to remain at lower levels than before the devices were introduced.

References

¹ Highway Loss Data Institute. 1983. A Comparison of the Theft Loss Experience of General Motors Passengers Cars With and Without Factory-Installed Theft Deterrent Systems. A-19. Arlington, VA.

² Highway Loss Data Institute. 1994. Insurance Special Report. Factors Affecting Theft Losses, 1986-93 Models. A-42. Arlington, VA.

³ Highway Loss Data Institute. Theft Loss Bulletin, Vol. 14, No. 1, February 1996.

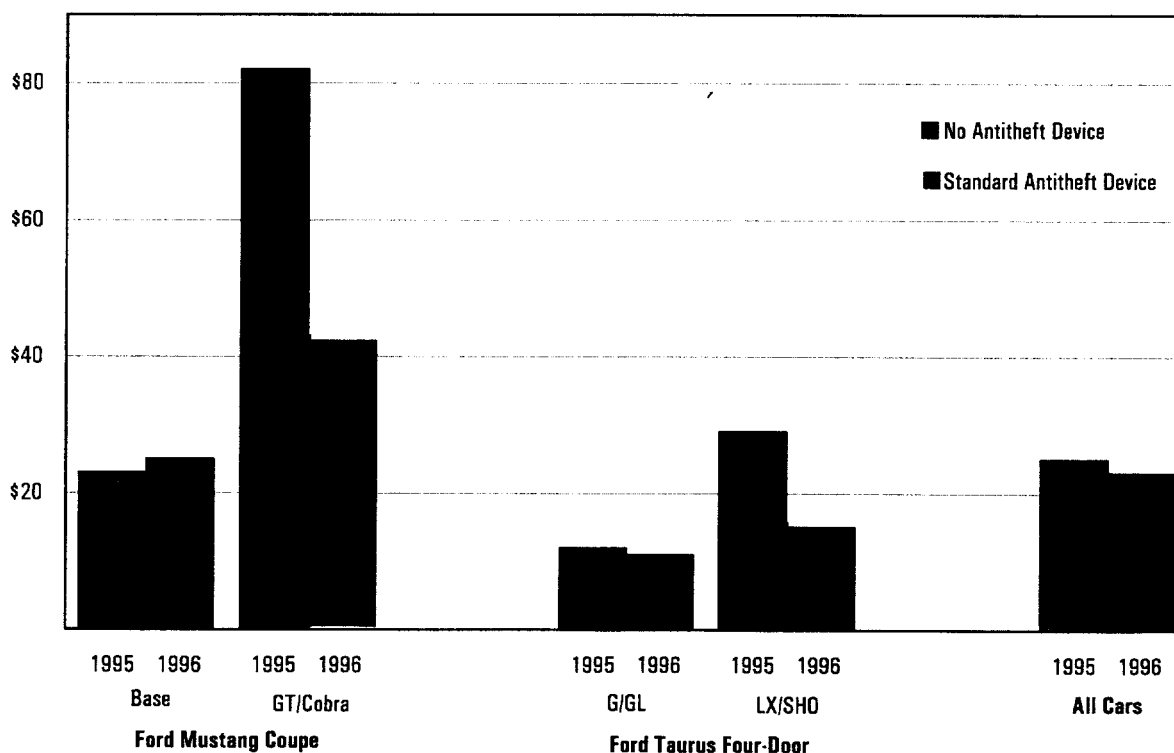
Previous HLDI studies have found significant decreases in theft losses when factory-installed passive immobilizing antitheft devices are introduced.^{1,2} Two recent *Theft Loss Bulletins* have found appreciable decreases in the overall theft losses for vehicles to which General Motors and BMW added passive immobilizing antitheft devices as standard equipment.^{3,4}

Ford began installing passive immobilizing antitheft devices, known as Securilock, on high-end 1996 Ford Mustang and Taurus and Mercury Sable models. On other models of these vehicle series, the new antitheft device was not available. The Securilock system is activated by removing the key from the ignition and features a computer chip programmed with a security code embedded into the ignition key. If someone attempts to start the ve-

hicle without the correct key, the system disables the engine to block a drive-away theft.

The figure below compares the average loss payment per insured vehicle year of 1996 Ford models with the Securilock system and corresponding 1995 models without this antitheft device. Only the Ford Mustang coupe and four-door Taurus had sufficient exposure to be listed. Results are based on coverage and losses from a vehicle's introduction through April 1997. As shown in the figure, overall theft losses decreased dramatically after the antitheft devices were added — an approximate 50 percent drop for both the Mustang GT/Cobra and Taurus LX/SHO. In contrast, models without such devices showed only minimal change in overall losses between the 1995 and 1996 model years. The all-passenger-car

**Theft Average Loss Payment per Insured Vehicle Year
1995 Models vs. 1996 Models**



average loss payment per insured vehicle year also changed minimally. Significant decreases occurred in both claim frequencies and average loss payments per claim for models with passive immobilizing antitheft devices. The average loss payments per claim showed the more pronounced decreases — 20 percent for the Ford Mustang GT/Cobra coupe and 28 percent for the four-door Ford Taurus LX/SHO — while the all-passenger-car result increased 8 percent. The reduction in theft losses for Fords with Securilock is consistent with results from other studies of General Motors and BMW vehicles.^{3,4}

Typically, the addition of passive immobilizing antitheft devices results in large decreases in average loss payments per theft claim and smaller decreases in theft claim frequencies. This pattern is not surprising because the antitheft devices prevent vehicles from being started and driven away, but they do little to prevent partial thefts and damage to vehicles from attempted thefts. Hence, expensive total thefts of vehicles are reduced by the new antitheft device. This results in lower average loss payments, but theft claim frequencies, which are dominated by smaller claims, are less affected.

Ford Mustang base coupe	1995	No	72,327	415	5.5	\$4,145	\$23
	1996	No	23,783	117	4.8	\$5,213	\$25
Ford Mustang GT/Cobra coupe	1995	No	44,966	427	8.9	\$9,157	\$82
	1996	Yes	17,289	105	5.7	\$7,312	\$42
Ford Taurus G/GL four-door	1995	No	203,038	562	2.8	\$4,253	\$12
	1996	No	68,706	149	2.3	\$5,021	\$11
Ford Taurus LX/SHO four-door	1995	No	21,017	76	3.9	\$7,383	\$29
	1996	Yes	23,081	57	2.8	\$5,341	\$15
All Passenger Cars	1995		9,496,545	41,364	4.4	\$5,632	\$25
	1996		3,708,796	14,113	3.8	\$6,101	\$23

References

1. Highway Loss Data Institute. 1983. A Comparison of the Theft Loss Experience of General Motors Passenger Cars with and without Factory Installed Theft Deterrent Systems, A-19. Arlington, VA.
2. Highway Loss Data Institute. 1994. Insurance Special Report. Factors Affecting Theft Losses – 1986-93 Models, A-42. Arlington, VA.
3. Highway Loss Data Institute. Theft Loss Bulletin, Vol. 14, No. 1. February 1996.
4. Highway Loss Data Institute. Theft Loss Bulletin, Vol. 14, No. 2. April 1996.

HIGHWAY LOSS DATA INSTITUTE

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HIGHWAY LOSS DATA INSTITUTE

THEFT LOSS Bulletin

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Previous studies by the Highway Loss Data Institute have found significant decreases in vehicle theft losses when factory-installed passive immobilizing antitheft devices are introduced.^{1,2} Recent Theft Loss Bulletins have found appreciable decreases in the overall theft losses for vehicles to which General Motors, BMW, and Ford added passive immobilizing antitheft devices as standard equipment.^{3,4}

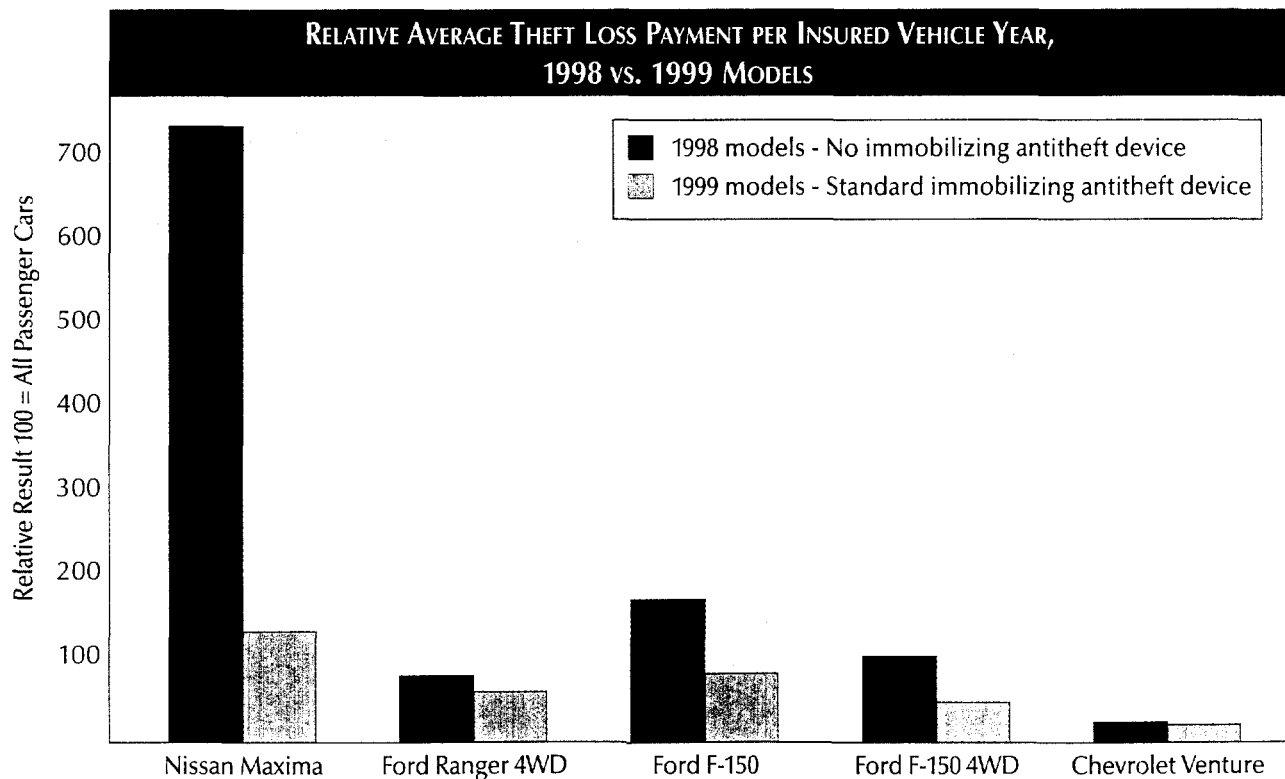
Several manufacturers introduced standard factory-installed passive immobilizing antitheft devices on 1999 models. Those vehicles with unchanged designs for 1999 and sufficient exposure for 1999 and 1998 model years were selected for this study: Nissan Maxima, Ford Ranger 4WD, Ford F-150, Ford F-150 4WD, and Chevrolet Venture.

The figure below compares the overall theft losses for these vehicles before (1998 models) and after (1999 models) introduction of the immobilizing antitheft devices. Losses are presented in

relative terms, with 100 equaling the all-passenger-car average for each model year. Results are based on coverage and losses from a vehicle's introduction through November 1999.

Overall losses decreased for all the 1999 models, although there was a wide range of differences. The Nissan Maxima had the largest decrease, from more than seven times the all-passenger-car average to just 32 percent above average. The Ford F-150 and F-150 4WD also had significant decreases in overall theft losses of about 50 percent. Overall theft losses for the Ford Ranger 4WD and Chevrolet Venture were better than average before the immobilizing antitheft devices were added but still decreased some for the 1999 models.

The drop in overall theft losses for the Maxima was due to decreases in both claim frequency and average loss payment per claim (see table). The other four vehicles—Ford Ranger 4WD, Ford F-150, Ford F-150 4WD, and Chevrolet Venture—showed



EFFECT OF PASSIVE IMMOBILIZING ANTITHEFT DEVICES ON THEFT LOSSES

VEHICLE	BODY SIZE AND TYPE	MODEL YEAR	STANDARD FACTORY-INSTALLED	EXPOSURE (IN INSURED VEHICLE YEARS)	NUMBER OF CLAIMS	RELATIVE CLAIM FREQUENCY	RELATIVE AVERAGE LOSS PAYMENT PER CLAIM	RELATIVE AVERAGE LOSS PAYMENT PER INSURED VEHICLE YEAR
			IMMOBILIZING ANTITHEFT DEVICE*					
Nissan Maxima	Midsize car	1999	yes	36,217	112	134	99	132
		1998	no	85,466	770	307	240	736
Ford Ranger 4WD	Small pickup	1999	yes	39,240	79	87	69	60
		1998	no	66,111	137	80	99	79
Ford F-150	Large pickup	1999	yes	89,956	198	104	78	82
		1998	no	239,933	786	130	131	170
Ford F-150 4WD	Large pickup	1999	yes	44,467	88	92	52	48
		1998	no	107,491	234	87	118	102
Chevrolet Venture	Large passenger van	1999	yes	23,109	18	32	67	21
		1998	no	64,807	56	31	78	24
All Passenger Cars		1999				100 = 2.24 **	100 = \$5,484	100 = \$12.29
		1998				100 = 2.54 **	100 = \$5,895	100 = \$14.98

* Vehicles had optional alarm in 1998

** Claims per 1,000 insured vehicle years

little or no improvement in claim frequencies for 1999 but did drop significantly in average loss payments per claim for 1999. This pattern is typical for other vehicles to which immobilizing antitheft devices were added. The significant drop in average loss payments but not claim frequencies results from the antitheft device preventing the vehicle from being started and driven away; however, it does little to prevent partial thefts and damage to vehicles from attempted thefts. Hence, expensive total thefts of vehicles are reduced by the new antitheft devices, resulting in lower average loss payments; but theft claim frequencies, which are dominated by smaller claims, are less affected.

References

- ¹ Highway Loss Data Institute. 1994. Insurance Special Report A-42: Factors Affecting Theft Losses, 1986-93 Models. Arlington, VA.
- ² Highway Loss Data Institute. 1998. Insurance Special Report A-53: Theft Loss Factors, 1990-97 Models. Arlington, VA.
- ³ Highway Loss Data Institute. 1996. Theft Loss Bulletin, Vol. 14, No. 1.
- ⁴ Highway Loss Data Institute. 1996. Theft Loss Bulletin, Vol. 14, No. 2.
- ⁵ Highway Loss Data Institute. 1997. Theft Loss Bulletin, Vol. 15, No. 1.

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